

REMARKS

In the Office Action, the Examiner rejected claims 16-18 and 22-33. By this response, the Applicant amends claims 16, 26, and 28. These amendments do not add any new matter. Upon entry of the amendments, claims 16-18 and 22-33 will be pending in the present patent application. Reconsideration of the application as amended is respectfully requested.

Claim Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 16, 18, 22, 24-28, 30, 31, and 33 under 35 U.S.C. § 102(b) as being anticipated by Song, U.S. Patent No. 5,776,799 (hereafter referred to as “the Song reference”). The Applicant respectfully traverses this rejection.

Anticipation under 35 U.S.C. § 102 can be found only if a single reference shows exactly what is claimed. *See Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir.1985). For a prior art reference to anticipate under 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. *See In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir.1990). That is, the prior art reference must show the *identical invention “in as complete detail as contained in the ... claim”* to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, the Applicant need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

Moreover, the Applicant submits that, during patent examination, the pending claims must be given an interpretation that is *reasonable* and *consistent* with the specification. *See In re Prater*, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969); *In re Morris*, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); see also M.P.E.P. § 2111 (describing the standards for claim interpretation during prosecution). Indeed, the *specification* is “the primary basis for construing the claims.” *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005). It is usually dispositive. *See id.* Interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *See In re Cortright*, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); *see also*

M.P.E.P. § 2111. That is, recitations of a claim must be read as they would be interpreted by those of ordinary skill in the art. *See Rexnord Corp. v. Laliram Corp.*, 60 U.S.P.Q.2d 1851, 1854 (Fed. Cir. 2001); *see also* M.P.E.P. § 2111.01. In summary, an Examiner, during prosecution, must interpret a claim recitation as one of ordinary skill in the art would reasonably interpret the claim in view of the specification. *See In re American Academy of Science Tech Center*, 70 U.S.P.Q.2d 1827 (Fed. Cir. 2004).

Embodiments of the present invention are directed to a method of attaching an integrated circuit die to a substrate or leadframe. *See* Application, page 12, lines 12-13. Specifically, present embodiments are directed to improving cost efficiencies associated with producing electrical circuit packages by limiting the application of adhesive (e.g., tape or adhesive epoxy) to electrically good integrated circuit die on a wafer. *See* Application, page 12, lines 17-18. This is achieved, in accordance with present embodiments, by producing a *wafer map* that indicates which integrated circuit die are electrically good based on probing of the wafer. *See* Application, page 12, lines 14-16. In one embodiment, the wafer map is used *after grinding the wafer* to apply adhesive to only the electrically good die on the wafer. *See* Application, page 12, lines 16-18.

Accordingly, amended independent claim 16 recites, *inter alia*, “A method comprising ... producing a *wafer map* depicting the electrically good integrated circuit die; *grinding the wafer to a desired thickness after producing the wafer map*; and disposing an adhesive material onto only the electrically good integrated circuit die *in accordance with the wafer map*.” (Emphasis added). Amended independent claim 26 recites, *inter alia*, “A method comprising ... grinding the wafer to a desired thickness *after identifying the electrically good integrated circuit die on the wafer*; and disposing an adhesive material onto only the electrically good integrated circuit die on the wafer *after grinding the wafer to the desired thickness*.” (Emphasis added). Further, claims 27 and 28, which depend from claim 26, each recite, *inter alia*, “producing a *wafer map* depicting the electrically good integrated circuit die.” (Emphasis added).

First, the Applicant respectfully asserts that the Examiner has misinterpreted the recitation of a “wafer map” in independent claim 16 and dependent claims 27 and 28. Indeed, in the Office Action, the Examiner asserted that “marking defective dies with ink” is equivalent to producing a wafer map. *See* Office Action, page 2. However, the Applicant asserts that this interpretation is not consistent with the present specification. Indeed, as discussed below, the present specification indicates that the wafer map is separate from a surface of the wafer because the wafer map is utilized after the wafer surface is modified. *See* Application, page 12, lines 12-22. Accordingly, one of ordinary skill in the art would not interpret the presently recited “wafer map” to include ink markings on the surface of a wafer.

Second, even assuming *arguendo* that the ink dots in the Song reference may be interpreted as a “wafer map,” the Applicant asserts that the Song reference clearly fails to disclose all of the recited features in claims 16 and 26. The present specification teaches a process wherein a wafer map is generated that indicates which integrated circuit die on a wafer are electrically good. The integrated circuit wafer is then ground to a desired thickness and, following this grinding, the wafer map is used to attach adhesive (e.g., tape or adhesive epoxy) to only the electrically good die. *See* Application, page 12, lines 12-22; *see also* FIG. 6. Accordingly, independent claim 16 recites, *inter alia*, “grinding the wafer to a desired thickness *after producing the wafer map*,” and independent claim 26 recites, *inter alia*, “grinding the wafer to a desired thickness *after identifying the electrically good integrated circuit die on the wafer*; and disposing an adhesive material onto only the electrically good integrated circuit die on the wafer *after grinding the wafer to the desired thickness*.” (Emphasis added).

In contrast, the Song reference merely teaches that “defective chips on the wafer are identified with *ink dots* during EDS (Electrical Die Sorting) tests” and that “adhesive is only deposited on nondefective functional chips.” Song et al., col. 7, lines 29-35 (emphasis added). The Song reference does not teach grinding the wafer after producing the wafer map or identifying the electrically good circuit die. Indeed, if the Song reference did teach such a grinding step, the Applicant asserts that the ink would be ground away before it could be utilized

to determine on which die to dispose the adhesive. Accordingly, not only is the Examiner's interpretation of the term "wafer map" improper, but the Song reference clearly fails to disclose all of the features recited in independent claims 16 and 26.

In view of the Arguments set forth above, the Applicant stresses that the Song reference fails to disclose all of the features recited in amended independent claims 16 and 26. Accordingly, the Applicant requests that the Examiner withdraw the rejection of claims 16 and 26, and the claims depending therefrom. Further, the Applicant requests that the Examiner provide an indication of allowance for independent claims 16 and 26, and the claims depending therefrom.

Claim Rejections Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 17 and 29 under 35 U.S.C. § 103(a) as being unpatentable over the Song reference, and rejected claims 23 and 32 under 35 U.S.C. § 103(a) as being unpatentable over the Song reference in view of Jiang, U.S. Patent No. 6,524,891 (hereafter referred to as "the Jiang reference"). The Applicant respectfully traverses these rejections.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). To establish a *prima facie* case, the Examiner must show that the combination includes *all* of the claimed elements. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

In both of the Examiner's rejections under 35 U.S.C. § 103(a), the Examiner relies on the Song reference for its alleged teaching of the features recited in independent claims 16 and 26. However, as set forth above with respect to the rejection under 35 U.S.C. § 102, the Song reference fails to disclose *all* of the recited features of independent claims 16 and 26. Further, the Applicant respectfully asserts that neither the Examiner's assertions regarding one of ordinary skill in the art, nor the Jiang reference remedies the deficiencies of the Song reference set forth

above. Indeed, the Examiner merely cited the Jiang reference for its alleged teachings relating to manufacturing different types of packages. *See* Office Action, page 4.

In view of the arguments set forth above, the Applicant requests that the Examiner withdraw the rejections of claims 17, 23, 28, and 32 under 35 U.S.C. § 103(a) because the cited references, whether considered separately or in a hypothetical combination, fail to disclose *all* of the recited features. Further, the Applicant requests that the Examiner provide an indication of allowance for claims 17, 23, 28, and 32.

General Authorization for Extensions of Time

No fees are believed to be due at this time. If any fees, including fees for extensions of time and other reasons, are deemed necessary to advance prosecution of the present application, at this or any other time, the Applicant hereby authorizes the Commissioner to charge such requisite fees to Deposit Account No. 06-1315; Order No. MICS:0045-1. In accordance with 37 C.F.R. § 1.136, Applicants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request thereof.

Conclusion

In view of the remarks and amendments set forth above, the Applicant respectfully requests allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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